

Investing in inventors

Dr Yolanda Comedy explains why policy makers must invest in inspiring, educating and supporting inventors, and how the use of Invention Ambassadors can help further innovation

What are the overarching objectives of the American Association for the Advancement of Science (AAAS)-Lemelson Invention Ambassadors Program?

The goals of the Program are to help cultivate a new and diverse generation of inventors; increase global understanding of the role of invention in creating a better quality of life, including creating new products and building new businesses; and highlight the importance of inventors and invention education in building economies and fostering innovation.

Essentially, the Program is a celebration of inventors and the way that invention changes lives, improves the economy, and is sometimes just ridiculously cool. Invention is geared towards solving problems and looking at challenges in a whole new way. The concept underlying the tagline for the AAAS-Lemelson Invention Ambassadors Program – ‘Advancing the World Through the Power of Invention’ – is what gets me out of the bed in the morning. There are extraordinary individuals in our world who are always thinking, ‘how do I make things better?’ and we need more of these people.

How did the AAAS-Lemelson Invention Ambassadors Program first come about?

Jerry Lemelson, one of the founders of The Lemelson Foundation, was one of the most prolific inventors of the 20th Century and AAAS is the publisher of *Science Magazine*, which was originally started, edited and published by one of the country’s most well-known inventors, Thomas Edison. Both organisations, with our history of invention were excited by the Invention Ambassador idea of Alexander Nicholas from The Lemelson Foundation, who had previously been an AAAS Policy Fellow. Personally, I loved the idea at once – I had

Dr Yolanda Comedy has written an article about invention entitled ‘Invention: the Invisible Hero’ which can be accessed online at <http://bit.ly/Ingentaconnect>

previously worked for both the White House and IBM on science policy issues, so I was excited about celebrating the role that invention plays in improving global quality of life. Indeed, I’m part of the science policy field because of my passion for solving world problems. Policy is often central to those efforts, as is highlighting lessons learned and what works and what needs to work better.

Why should invention be better understood, supported and highlighted?

We often overlook the role of invention in improving our quality of life. ‘Innovation’ has become such a buzzword that we don’t think about all of the components that cause innovation to occur, but invention is a critical component. Invention and innovation impact our daily lives in so many ways, from making peanut butter sandwiches to cell phones to changing our relationship with finite resources.

What are the main responsibilities of an Invention Ambassador?

An Invention Ambassador’s main responsibility is to give talks and serve on panels to discuss their role as inventors and what needs to occur to ensure that future inventors are encouraged, supported and celebrated. It is also our hope that, through the Invention Ambassadors Program, we will create a community of inventors who can support each other, learn from each other and foster ideas to establish a great cadre of future inventors.

How was the first class of Invention Ambassadors selected?

To help us kickstart this new Program, we created an incredible advisory committee of people who genuinely care about invention and innovation. The Invention Ambassadors applied or were nominated. We had a dedicated working group who read through and scored these applications, and conducted the interviews. The results of these interviews determined the inaugural Ambassadors.

By what means does the Program support the activities of the Invention Ambassadors?

Officially, our job is threefold: to appoint great Ambassadors, find and/or create worthwhile venues in which they can share their messages, and help conduct research to find important

messages to share with audiences. However, we see our role as bigger than this! Since we have such an extraordinary inaugural class, our job is also to help create a community. Our inaugural Ambassadors have bonded and shared information, time, thoughts and experiences with each other. We see it as our job to help these relationships deepen and expand, and to provide moral support for these incredible inventors.

In which direction do you see the Program developing in the future?

We have opened up applications for the second class. Furthermore, while this is a pilot project, we hope to continue the Program further and initiated discussions with The Lemelson Foundation to this end. I look forward to the possibility of solving problems through invention by continuing to celebrate invention, foster dialogue and help inspire future inventors!



Ambassadors for invention

In an effort to celebrate and highlight the importance of inventors and invention, two organisations have joined forces to establish the **American Association for the Advancement of Science-Lemelson Invention Ambassadors Program**

Dr Yolanda Comedy outlines the impressive achievements of the first class of Invention Ambassadors

THE INAUGURAL INVENTION AMBASSADORS



Professor Karen Burg

"Karen cares about helping people have an easier time in the operating room and creating better experiences for women with breast cancer. She is an engineer who knows how to make tools and designs that work but are less invasive."

TACKLING THE GRAND challenges of the 21st Century increasingly requires countries to invent and innovate. To inspire a new generation of inventors, creative strategies and programmes must be devised and implemented. This is exactly the goal that has led two organisations – The Lemelson Foundation and the American Association for the Advancement of Science (AAAS) – to forge a new partnership. The partnership draws strength from AAAS and The Lemelson Foundation's missions to serve society and benefit the world. Lemelson is dedicated to inspiring and enabling the next generation of inventors, and AAAS's mission is to 'advance science, engineering, and innovation throughout the world for the benefit of all people'.

A PIONEERING PROGRAMME

"Invention is the foundation for innovation, and its ecosystem requires two core components: culture and talent," explains Dr Yolanda Comedy, Director of the AAAS Center for Advancing Science & Engineering Capacity and

a driving force behind the Program. In order to support these components, the Program simultaneously celebrates and highlights invention and inventors in an effort to garner new interest from policy makers, innovation stakeholders and the general public alike.

The premise of the Program is simple: over a three-year pilot phase, appoint 15 Invention Ambassadors to promote invention and inventors. This will be achieved by relaying important messages about the key role played by invention within the innovation ecosystem, as well as the myriad ways invention is necessary for job creation, supporting the economy and improving quality of life.

THE PROGRAM IN PRACTICE

The Program began in November 2013, and the inaugural class of seven Invention Ambassadors was ready to begin its year-long tenure in the summer of 2014. Together, the class contains a broad range of areas of expertise and backgrounds, but all of the



Dr Rory Cooper

"Rory, who is himself in a wheelchair, thinks constantly about improving life for people with disabilities. He is passionate about inventing new devices and tools. He loves wheelchair racing and has designed chairs for people who race."



Sorin Grama

"Sorin is passionate about turning research into applications that can help the world. He moved to India with the aim of helping farmers achieve the refrigeration necessary to get their milk to market. Now, after many painstaking years, his invention is useful to many."



Dr Paul Sanberg

"Paul is an inventor with approximately 100 health-related patents, and his work has been instrumental in bringing new pharmaceutical and cellular therapeutics from bench to bedside. He also founded the prestigious National Academy of Inventors."



Steven J Sasson

"Steve invented the digital camera, which has transformed so many things – from smartphones, to using less chemicals and wasting less paper, to medical imaging. This man caused a real revolution in the way we take and share images."



Paul Stamets

"Paul is dedicated to saving the planet. He is an incredibly passionate person, who has figured out methods to protect our health, save our bee populations, create less harmful ways to rid ourselves of pests and thinks constantly of preserving the Earth and its organisms."



Dr Vinod Veedu

"Vinod and nanotechnology are both out to change so many aspects of the way we live. From nanobrushes to surf boards, Vinod is consistently inventing and improving many things around us."

INTELLIGENCE

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (AAAS) - LEMELSON INVENTION AMBASSADORS PROGRAM

OBJECTIVES

- To celebrate and highlight the importance of invention and inventors
- To increase societies' understanding of the critical role of invention in improving quality of life and addressing global challenges
- To help cultivate a new and diverse generation of inventors
- To get more people excited about supporting and becoming inventors
- To increase understanding of the role of invention, inventors and invention education and the need for a robust invention ecosystem in building economies and fostering innovation

PARTNERS/FUNDING

The Lemelson Foundation

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Director of the AAAS Center for
Advancing Science & Engineering
Capacity, where she directs
a number of programmes,

including the AAAS-Lemelson Invention Ambassadors Program. Comedy works on science and technology issues and has previously worked for the White House, serving as a Senior Policy Analyst for both the President's Committee of Advisors on Science and Technology and the President's Information Technology Advisory Committee; and IBM working in strategic philanthropy, governmental programmes and business consulting. Comedy obtained her PhD from Indiana University in Political Science.



To view videos of selected
Invention Ambassadors
speaking at the Celebrate
Invention event visit
<http://bit.ly/CelebrateInvention>

Ambassadors are united by the fact that they are prolific inventors. Overall, the group holds a combined total of approximately 150 patents.

Upon selection, the Invention Ambassadors participated in a 'Celebrate Invention' event at the AAAS Headquarters on 1 July, 2014. "Each Ambassador in attendance spoke for 12 minutes about their inventions and their lives as inventors. The theme of their talks centred on moments of invention – that moment or those moments in which something transformative happened," recalls Comedy. "It was great – informative and inspiring."

Each inaugural Invention Ambassador will speak at two or more strategic engagement events over the course of their tenure. Comedy and her colleagues position the Ambassadors in appropriate dialogues and venues and identify and generate compelling, evidence-based messages to bolster the Ambassadors' call to arms.

HOT ON THEIR HEELS

While the first class of Invention Ambassadors continue their important work and move towards the Culminating Event in June 2015, applications and nominations for the second class of Ambassadors is already open at <http://inventionambassadors.aaas.org>. The new class can pick up directly where the first class left off, but Comedy hopes that the Program will begin to build a community of inventors and that previous classes will stay involved.

It is too early to predict what will become of this community of Invention Ambassadors following the pilot's completion, but it is hoped that this community of creators will have a significant impact on invention within the policy landscape in the years ahead.

DATES FOR YOUR DIARY

Invention Ambassadors will be speaking at the upcoming events:

AAAS Annual Meeting

12-16 February
San Jose, California, USA

4th Annual National Academy of Inventors Conference

19-20 March
Pasadena, California, USA

VentureWell OPEN Conference

20-21 March
Washington DC, USA

AAAS Forum on Science & Technology Policy

30 April – 1 May
Washington DC, USA

Ambassador Culminating Event

15 June
West Orange, New Jersey, USA



ADVANCING SCIENCE. SERVING SOCIETY